recognizable risk factor such as surgery or trauma. Given the risks of long-term anticoagulant, it is desirable to identify which patients with idiopathic VTE are particularly prone to recurrence. If this study can be confirmed by others, measurement of thrombin generation may prove to be a relatively simple method of stratifying patients for length of anticoagulation after a first time episode of idiopathic VTE.

The examination assessment of technical competence in vascular surgery

Pandey DA, Wolfe JHN, Liapis CD; and the European Board of Vascular Surgery. Br J Surg 2006;93:1132-8.

Conclusion: It is possible to develop a model to assess surgical technical skills in an examination setting.

Summary: The European Board of Surgery Qualifications in Vascular Surgery examination is a Pan European examination for vascular surgeons who have certificates of competence from their home country. The authors sought to evaluate the inclusion of technical skills as a component of the European Board of Surgery Qualifications in Vascular Surgery Examination.

Evaluated were 30 vascular surgeons, including 22 candidates for certification, and 8 examiners. Each was tested on dexterity and ability to perform a vascular anastomosis and dissection pertinent to a vascular procedure. Dissection was tested on a synthetic saphenofemoral junction model. The ability to perform an anastomosis was assessed using an anterior tibial artery of a synthetic leg model. Dexterity was tested using a knot-tying simulator with electromagnetic motion analysis. Validated rating scores were used by two independent examiners for each area. The technical points of the examination were weighted as listed: 35% for dissection, 45% for anastomotic competence, and 20% for dexterity.

Examiners performed better than the candidates for certification with respect to dissection ($P < .001$) anastomosis ($P = .002$) and dexterity ($P = .005$). No correlation was observed between technical skills tested by this examination and scores on the oral certifying examination.

Comment: The authors point out that it seems silly not to assess technical skills in a certifying examination for a surgeon. Nevertheless, it is extremely unusual for technical skills to be assessed in a national certifying surgical examination. Before implementing this type of assessment, it seems prudent to correlate results of scores from this examination with established surgeons' morbidity and mortality rates, as well as rates of technical error in day-to-day practice. I know of no movement to incorporate a technical skills examination into the current North American certifying examination for vascular surgery.

Cloning the arterial IgA antibody response during acute Kawasaki disease

Rowley AH, Shulman ST, Garcia FL, et al. J Immunol 2005;175:8386-91.

Conclusion: The arterial antibody response in human vasculitis can be cloned and used to determine antigenic targets of antibodies produced by plasma cells in inflamed vascular tissue.

Summary: In children from developed nations, Kawasaki disease is the most common acquired cardiac disease. It is a form of vasculitis. The etiology is unknown, but may be a microbial agent. In Kawasaki disease, oligoclonal immunoglobulin (Ig) A plasma cells infiltrate inflamed tissues, including coronary arteries. Antibodies with an α-H chain sequence are prevalent in acute Kawasaki disease. These antibodies can be manufactured and then used to detect antigen in coronary arteries of patients with Kawasaki disease. These antigens appear to be localized to cytoplasmic inclusion bodies.

The authors synthesized 13 monoclonal antibodies using combinations of α-H and κ-L chain sequences. They then tested the binding of these antibodies to tissue afflicted by acute Kawasaki disease. The synthetic monoclonal antibodies detected antigen in cytoplasmic inclusion bodies in acute Kawasaki disease tissue. The strength of the binding of the antibodies to the acute Kawasaki disease tissue was roughly parallel to the α-sequences prevalent in the Kawasaki disease tissue. Antibodies made from two prevalent α-H chains bound more strongly to acute Kawasaki disease tissues than did antibodies made from less prevalent α-chains. All synthetic antibodies that detected antigen in the acute Kawasaki disease tissues had the same binding pattern.

Comment: This is highly sophisticated immunology. The details of the paper are certainly beyond the knowledge base of most vascular surgeons. However, the concept presented here is extremely interesting in that the synthetic antibodies bound to cytoplasmic inclusion bodies in a similar pattern. That result is consistent with the presence of a microbial pathogen. It suggests an infectious etiology for at least this form of vasculitis.

Physical activity during daily life and mortality in patients with peripheral arterial disease

Garg PK, Tian L, Criqui MH, et al. Circulation 2006;114:242-8.

Conclusion: Controlling for confounding variables, including ankle brachial index (ABI) and body mass index (BMI), patients with peripheral arterial disease (PAD) and higher levels of physical activity have reduced cardiovascular events and mortality compared with those with PAD and lower levels of physical activity.

Summary: The authors investigated the effect of physical activity on cardiovascular events and mortality in patients with PAD. There were 460 men and women with PAD (mean age, 71.9 ± 8.4 years) who were followed up for 57 months (interquartile range, 36.6 to 61.9 months). Vertical accelerometers were used to measure physical activity in 225 patients continuously for 7 days. Analysis for mortality and cardiovascular events with respect to level of physical activity was adjusted for body mass index, age, race, sex, lipid levels, comorbidities, smoking, hypertension, leg symptoms, and ankle-brachial index.

At 57-month follow-up, 29% of the patients (n = 134) had died, including 75 patients who wore accelerometers. As measured by vertical accelerometer, higher baseline physical activity levels were associated with lower all cause mortality ($P_{trend} = .003$). Patients in the lowest quartile of physical activity as measured by accelerometer had higher total mortality compared with those in the highest quartile of accelerometer-measured physical activity (hazard ratio, 3.48, 95% confidence interval [CI], 1.23 to 9.87, $P = .019$). Combining cardiovascular events and cardiovascular mortality provided similar results ($P_{trend} = .005$). Increasing numbers of stair flights climbed during a one week period were also associated with lower total mortality ($P_{trend} = .035$).

Comment: It is well known that higher physical activity levels are associated with lower all-cause and cardiovascular disease mortality in healthy populations. It appears this is also the case in patients with PAD. Therefore, even if a walking program does not improve a patient's claudication distance, it may be that patients should still be encouraged to increase their physical activity levels to prolong survival and decrease adverse cardiovascular events.

Underinvestigation and undertreatment of carotid disease in elderly patients with transit ischemic attack and stroke: Comparative population-base study

Fairhead JF, Rothwell PM. BMJ 2006;333:525-7.

Conclusions: There is an increase in incidence of symptomatic carotid stenosis with age. Patients >80 years of age with transit ischemic attack (TIA) or ischemic stroke are poorly evaluated.

Summary: This was a comparative population-base study designed to assess for under-investigation of older patients who have TIAs or stroke. The authors used data from routine clinical practice from Oxfordshire, England and compared it with data obtained from the Oxford Vascular Study (OXVASC), a nested population study of the incidence of TIAs and stroke in the same area.

Patients were identified who underwent carotid imaging for ischemic retinal or cerebral transient ischemic attacks or stroke from April 1, 2002, to March 31, 2005, in the Oxford Vascular Study, and from April 1, 2002, to March 31, 2003, in routine clinical practice. Age-specific rates were determined for carotid imaging, diagnosis of >50% symptomatic carotid stenosis, and use of carotid endarterectomy in patients who had had a recent transit ischemic attack or stroke.

The incidence of >50% symptomatic internal carotid artery (ICA) stenosis increased significantly with age. It was frequently diagnosed in patients aged >80 years. The rates of carotid imaging, diagnosis of >50% symptomatic stenosis, and performance of carotid endarterectomy were all substantially lower in patients >80 years in routine practice compared with the Oxford Vascular Study (carotid imaging: relative rate 0.36, 95% confidence interval [CI], 0.8 to 0.46, $P < .001$; for diagnosis of >50% symptomatic stenosis, 0.33, 95% CI, 0.16 to 0.69, $P = .004$; and carotid endarterectomy, 0.19; 95% CI 0.06 to 0.63, $P = .007$).

Comment: The data indicate that although rates of symptomatic carotid stenosis increase steeply with age, most patients >80 who have symptomatic carotid stenosis are poorly investigated in routine clinical practice. Because rates of endarterectomy increase steeply in the patients >80 years of age in the Oxford Vascular Study, the low investigation rates of symptomatic patients >80 in routine clinical practice indicates that this is not likely due to contraindications to treatment or to patient choice. It may be that practitioners have a bias against treatment of elderly patients with transit ischemic attacks or stroke, or a knowledge deficit exists among practitioners in routine practice regarding the risk of carotid endarterectomy in elderly patients.